

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/18211

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : Please See Extra Sheet.

US CL : Please See Extra Sheet.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : Please See Extra Sheet.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST,INSPEC < CA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| - | - | |
| A | US 5,871,630 A (BHATTACHARYA et al) 16 February 1999, see abstract. | 1-33 |
| A | US 5,141,564 A (CHEN et al) 25 August 1992, see abstract. | 1-33 |
| A | US 5,436,204 A (ALBIN et al) 25 July 1995, see abstract. | 1-33 |
| A | US 6,259,016 B1 (NEGAMI et al) 10 July 2001, see abstract, Fig. 5 and Fig. 6 and related description. | 1-33 |
| Y | US 5,981,868 A (KUSHIYA et al) 09 November 1999, see Fig. 1 and related description. | 1-33 |



Further documents are listed in the continuation of Box C.



See patent family annex.

| | |
|---|--|
| * Special categories of cited documents: | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| "A" document defining the general state of the art which is not considered to be of particular relevance | "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| "E" earlier document published on or after the international filing date | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "&" document member of the same patent family |
| "O" document referring to an oral disclosure, use, exhibition or other means | |
| "P" document published prior to the international filing date but later than the priority date claimed | |

Date of the actual completion of the international search

22 SEPTEMBER 2003

Date of mailing of the international search report

06 NOV 2003

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US03/18211

A. CLASSIFICATION OF SUBJECT MATTER:
IPC (7):

HOIL 31/0376; HOIL 31/0392; HOIL 31/072; HOIL 21/304; HOIL 31/06; HOIL 20/00

A. CLASSIFICATION OF SUBJECT MATTER:
US CL :

438/48,57,73,7485,96,97, 486-491
136/265,252,262,263,264
257/43,428,461464

B. FIELDS SEARCHED

Minimum documentation searched

Classification System: U.S.

438/48,57,73,7485,96,97, 486-491
136/265,252,262,263,264,255,258,249
257/43,428,461464

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INTERNATIONAL SEARCH REPORTInternational application No.
PCT/US03/18211**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| Y | US 6,121,541 A (ARYA) 19 September 2000, see abstract and Fig. 2 and related description. | 1-33 |